IN THE CLAIMS:

1. (Currently Amended) ~~A method of updating bias of a model of a speech signal in a sequential manner, comprising the steps of:~~

~~introducing an adjustable bias in a distribution parameter of a Hidden Markov Model (HMM) of a signal;~~

~~calculating a correction item for the adjustable bias based on each new observation used in recognizing the signal; and~~

~~updating the adjustable bias by adding the correction item thereto.~~

A method of recognizing a speech signal, comprising:

providing an adjustable bias to a probability density function of a Hidden Markov Model (HMM);

detecting a first speech signal;

using said HMM to recognize said first speech signal;

updating said adjustable bias using said first speech signal; and

recognizing a second speech signal detected after said first speech signal with said HMM employing said updated adjustable bias.

2. (Currently Amended) The method of ~~claim 1~~ claim 15 wherein ~~the~~ said adjustable bias ~~can be~~ is defined ~~on~~ for each state of ~~the~~ said HMM.

3. (Currently Amended) The method of ~~claim 1~~ claim 15 wherein ~~the~~ said adjustable bias is shared among different states of ~~the~~ said HMM.

4. (Currently Amended) The method of ~~claim 1~~ claim 15 wherein ~~the~~ said adjustable bias is shared by groups of states of ~~the~~ said HMM.

5. (Previously Presented) The method of claim 1 wherein the adjustable bias is shared by all states of the HMM.

6. (Currently Amended) The method of claim 1 wherein ~~the correction term~~ said updating is ~~calculated~~ based on ~~both~~ said first speech signal and ~~current~~ model parameters of the HMM that are current when said first speech signal is detected ~~and the new observation~~.

7. (Currently Amended) The method of claim 1 wherein ~~the correction term~~ said updating is ~~calculated~~ based on ~~both~~ said first speech signal and information derived from all signals detected prior to said first speech signal ~~provided to a recognizer for said recognizing~~ ~~and the new observation~~.

8. (Cancelled)

9. (Currently Amended) The method of claim 1 wherein ~~new available data from~~ a length of said ~~the new observation~~ first speech signal ~~could be based on any length~~ is arbitrary.

10. (Currently Amended) The method of claim 1 wherein ~~the~~ said first speech signal ~~new observation~~ is a frame.

11. (Currently Amended) The method of claim 1 wherein ~~the~~ said first speech signal ~~new observation~~ is an utterance.

12. (Currently Amended) The method of claim 1 wherein ~~the~~ said first speech signal ~~new observation is every~~ has a fixed ~~length~~ duration ~~of the signal~~.

13. (Currently Amended) The method of ~~claim 1~~ claim 12 wherein said duration ~~new observation~~ is ~~based on every~~ 10 minutes ~~of the signal~~.

14. (Currently Amended) The method of ~~claim 1~~ claim 17 wherein ~~the~~ said correction ~~item~~ term is a product of a sequence whose limit is zero, whose summation is infinity and whose square summation is not infinity and the summation of quantities weighted by a probability, the quantities based on a divergence of desired model parameter and observed signal.

15. (New) The method of claim 1, wherein said adjustable bias is state-dependent.

16. (New) The method of claim 1, wherein said HMM is one of a plurality of Hidden Markov Models for which state-dependent biases are updated.

17. (New) The method of claim 1, wherein said updating includes adding a correction term to said adjustable bias.